

### **REMARKS**

With this Amendment, claim 23 is amended to more expressly recite that the same transducer comprises an actuation mode and a detection mode, similar to the elements of claim 26, which was indicated as being allowable if re-written in independent form.

Support for this amendment can be found in the specification on page 7, line 24 to page 8, line 5, for example.

Although not all elements of claim 26 are included in amended claim 23 (for example the controller and the head), claim 23 is believed to be in condition for allowance for the reasons that follow.

#### **I. TELEPHONE INTERVIEW**

Applicant's attorney would like to thank the Examiner for the courtesies extended during telephone interviews held on November 26 and 27, 2007 during which Applicant's attorney proposed the above-amendments for discussion. While no specific agreement was reached, the Examiner indicated that the proposed amendments initially looked good and seemed to overcome the existing rejections. However, a new search and further consideration would have to be performed. No prior art reference was discussed.

#### **II. CLAIM 23 IS NOVEL IN VIEW OF EVANS ET AL.**

Evans et al. do not disclose "transducer coupled to the movable suspension assembly and comprising an actuation mode in which the transducer actuates the movable suspension assembly and a detection mode in which the transducer induces a transducer signal proportional to vibration of the movable suspension assembly," as recited in claim 23.

The most recent Office Action expanded the Examiner's interpretation of Evans et al. that an "actuator transducer" includes a collection of different elements comprising strain gauges 10 (in FIGS. 1 and 3), actuator system 21 (in FIG. 3), strain gauge 310, microactuator 338, tongue 334, and arms 329a and 329b (in FIG. 10).

However, none of these elements constitute "a transducer" having both "an actuation mode" and "a detection mode" as recited in claim 23.

Rather, strain gauges 10 and 310 sense strain, and microactuator 338 actuates. The

same transducer does not actuate and detect.

Thus, Evans et al. do not anticipate claim 23 or its dependent claims 24-26.

III. CLAIM 24 IS NON-OBVIOUS OVER EVANS ET AL. IN VIEW OF NOVOTNY

Claim 24 recites that the transducer comprises a piezoelectric or electrostatic actuator. Since claim 24 depends from claim 23, claim 24 requires such a piezoelectric or electrostatic actuator has both an actuation mode and a detection mode.

Novotny discloses that microactuators can include various designs, including piezoelectric and electrostatic.

Novotny does not teach or suggest a piezoelectric or electrostatic transducer that comprises “an actuation mode in which the transducer actuates the movable suspension assembly and a detection mode in which the transducer induces a transducer signal proportional to vibration of the movable suspension assembly.”

Claim 24 is therefore no obvious in view of Novotny.

IV. CLAIM 25 IS NOVEL IN VIEW OF EVANS ET AL.

Claim 25 depends from claim 23 and further includes “a controller coupled to the transducer and configured to transmit a signal to the transducer to move the movable suspension assembly.”

Thus, the transducer recited in claim 25 is the same transducer that induces a transducer signal proportional to vibration of the movable suspension assembly.

Evans et al. do not teach such a structure.

Nowhere do Evans et al. disclose that a controller transmits a signal to the strain gauges 10, 234 and 310 to move the movable suspension assembly. Rather, a controller controls the actuators 21 (FIG. 3) and 338 (FIG. 10). But these actuators do not provide a signal proportional to vibration of a movable suspension assembly.

Thus, Evans et al. does not teach a controller coupled to a transducer as defined in claim 25.

V. CLAIM OBJECTIONS

Claim 10 is amended to correct a typographical error such that claim 10 now depends from claim 9 rather than claim 19.

The objection to claim 10 should now be withdrawn.

The Director is authorized to charge any additional fees associated with this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: /David D. Brush/  
David D. Brush, Reg. No. 34,557  
Suite 1400  
900 Second Avenue South  
Minneapolis, Minnesota 55402-3319  
Phone:(612) 334-3222 Fax:(612) 334-3312